ABSTRACT

An austenitic nickel-chromium-molybdenum alloy with additions of silicon, has the following components (in mass percentages): 18 to 22% chromium, 6 to 10% molybdenum, 0.6 to 1.7% silicon, 0.002 to 0.05% carbon, 1 to 5% iron, 0.05 to 0.5% manganese, 0.1 to 0.5% aluminum, 0.1 to 0.5% titanium, 0.005 to 0.05% magnesium, 0.001 to 0.01% calcium, a maximum of 0.5% vanadium, a maximum of 0.02% phosphorus, a maximum of 0.01% sulphur, 0.001 to 0.01% boron, a maximum of 0.5% copper, a maximum of 1% cobalt, a maximum of 0.5% niobium, 0.02 to 0.5% hafnium, balance nickel and residual impurities whereby the total amount of additions of Nb + Al + Ti does not exceed 1%.